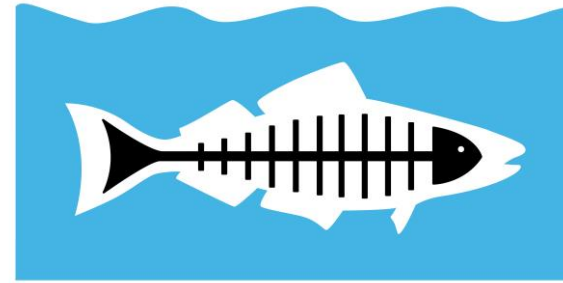




Humboldt BAYKEEPER
Klamath RIVERKEEPER
Yuba River WATERKEEPER
Russian RIVERKEEPER
Monterey COASTKEEPER
Santa Barbara CHANNELKEEPER
Los Angeles WATERKEEPER
Orange County COASTKEEPER
Inland Empire WATERKEEPER
San Diego COASTKEEPER



Heal the Bay

BACTERIA PROVISIONS

State Water Resources Control Board Meeting

August 7, 2018

Agenda Item 5

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Ryan Searcy, Water Quality Modeler, Heal the Bay

Karen Vu, Water Quality Analyst, Heal the Bay



I. California deserves a more protective water quality objective than the federal standard of 32 illnesses per 1,000 recreators.

Requested Action: The State Board should instruct its staff to conduct new epidemiological studies or use the existing California-based epidemiological studies to determine the illness rate as part of the Ocean Plan triennial review to improve both the chronic and acute bacteria objectives.

II. The State Board should not allow the numeric bacteria objective to supersede Regions with more stringent bacteria objectives.

Requested Language (*new language indicated in red*):

Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

Chapter III.E.3.

3. Interaction of Bacteria Water Quality Objectives with Basin Plans

The BACTERIA WATER QUALITY OBJECTIVES **only** supersede numeric water quality objectives for bacteria for the REC-1 beneficial use contained in a BASIN PLAN prior to *[insert the effective date of Part 3]* **that are less stringent than the numeric BACTERIA WATER QUALITY OBJECTIVES**. The BACTERIA WATER QUALITY OBJECTIVES do not supersede any narrative water quality objective or numeric **SITE-SPECIFIC WATER QUALITY OBJECTIVE** for bacteria established for the REC-1 beneficial use.

III. To ensure a protective monitoring protocol, and to be consistent with the EPA guidance, the State Board should adopt a 30 day rolling period for both the geometric mean and STV.

Requested Language (*new language indicated in red*):

Amendment to the Water Quality Control Plan for Ocean Waters of California

Chapter II.1.a.

Enterococci

A ~~six~~ **four**-week rolling Geometric Mean* (GM*) of enterococci not to exceed 30 colony forming units (cfu) per 100 milliliters (mL), calculated weekly, and a statistical threshold value* (STV) of 110 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected ~~in a calendar month*~~ **time, calculated in a static manner monthly over 30 days**. U.S. EPA recommends using U.S. EPA Method 1600 (U.S. EPA, 2002a) or other equivalent method to measure culturable enterococci.

Table 2.

The waterbody GM* shall not be greater than the GM* magnitude in any ~~six~~ **four**-week interval, calculated weekly. The STV* shall not be exceeded by more than 10 percent of the samples collected ~~in a calendar month*~~ **over 30 days**.

Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

Chapter III.E.2.

E. coli

The bacteria water quality objective for all waters, where the salinity is equal to or less than 1 part per thousand (ppt) 95 percent or more of the time during the CALENDAR YEAR is: a ~~six~~ **four**-week rolling GEOMETRIC MEAN of *Escherichia coli* (*E. coli*) not to exceed 100 colony forming units (cfu) per 100 milliliters (mL), calculated weekly, and a STATISTICAL THRESHOLD VALUE (STV) of 320 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected ~~in a CALENDAR MONTH, calculated in a static manner~~ **over the course of 30 days.**

Enterococci

The bacteria water quality objective for all waters where the salinity is greater than 1 ppt more than 5 percent of the time during the CALENDAR YEAR is: a ~~six~~ **four**-week rolling GEOMETRIC MEAN of enterococci not to exceed 30 cfu/100 mL, calculated weekly, with a STV of 110 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected ~~in a CALENDAR MONTH, calculated in a static manner~~ **over the course of 30 days.**

Table 1 – REC-1 Bacteria Water Quality Objectives

The waterbody GM shall not be greater than the applicable GM magnitude in any six-week interval, calculated weekly. The applicable STV shall not be exceeded by more than 10 percent of the samples collected ~~in a CALENDAR MONTH, calculated in a static manner~~ **over 30 days.**

IV. The State Board should align the Ocean Bacteria Provisions with AB411 Standards.

Requested Action: Until relevant, California-specific science is evaluated fully, the State Board should retain the previous bacteriological standards established in Title 17.

V. The State Board should prioritize public health and set water quality objectives for both E. coli and Enterococcus, not one or the other, for inland surface waters, enclosed bays, and estuaries.

Requested Action: The State Board should set water quality objectives for both E. coli and Enterococcus, not one or the other, for inland surface waters, enclosed bays, and estuaries.

VI. The State Board should define an upper salinity limit for waters with a salinity greater than 1 ppth, wherein the Plan for Ocean Waters would apply.

Requested Language (*new language indicated in red*):

Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

Chapter III.E.2.

Fecal coliform

The bacteria water quality objective for all waters where the salinity is greater than 1 ppth more than 5 percent of the CALENDAR YEAR is: a 30-day geometric mean* (GM) of fecal coliform density not to exceed 200 per 100 milliliters (mL), calculated based on the five most recent samples from each site, and a single sample maximum* (SSM) not to exceed 400 per 100 mL.

VII. The State Board should not apply a Limited REC-1 beneficial use statewide, or, at a minimum, the State should create more rigorous guidance for establishing a Limited REC-1 designation.

Requested Action for a Statewide UAA Criteria:

- At least five years of consistent water quality monitoring data (at least weekly) showing chronic water-body impairment (exceedances of state water quality standards). These data must be consistent among all areas seeking to undergo a UAA.
- All efforts towards improving water quality (BMPs, water quality improvement projects, source tracking etc.) must be exhausted. These efforts should include an analysis of water quality monitoring data before and after project implementation.
- Must provide adequate data to demonstrate human sources are not contributing to water quality impairment. Must prove significant documentation on the suggested lack of public use or access (pictures alone do not justify). This should be demonstrated by obtaining information through a combination of documented historical use, personal interviews, historians and digital archives.

THANK YOU!

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